b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-49655

Genomic DNA from *Mycobacterium africanum*, Strain NLA009502090

Catalog No. NR-49655

Product Description:

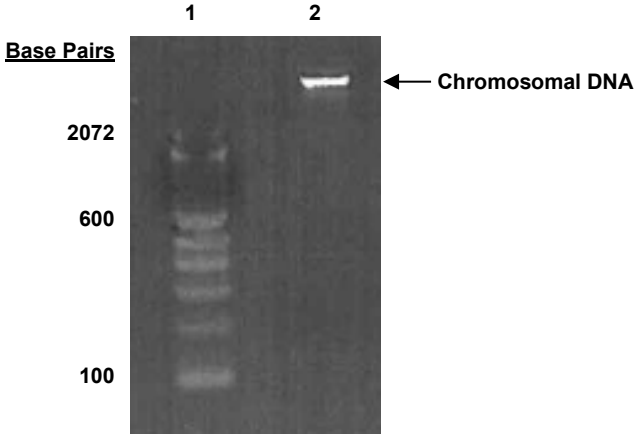
Genomic DNA was extracted from a preparation of *Mycobacterium africanum (M. africanum)*, strain NLA009502090.

Lot: 70003664[1,2] **Manufacturing Date: 07NOV2017**

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1410 base pairs)	≥ 99% sequence identity to *M. africanum* type strain (GenBank: AF480605.1)	99.9% sequence identity to *M. africanum* type strain (GenBank: AF480605.1)[3]
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	0.2 µg in 38 µL per vial (6 µg/mL)
Amount per Vial	0.7 to 1.5 µg	0.2 µg[4]
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD_{260}/OD_{280} Ratio	1.7 to 2.1	1.5[5]
Bacterial Inactivation 10% of total yield plated on agar [6,7]	No viable bacteria detected	No viable bacteria detected

[1]The bacterial preparation used for extraction of genomic DNA was produced from the BEI Resources NRS-49261 lot 70003658. Genomic DNA was extracted using proprietary technology.
[2]NR-49655 lot 70003664 was vialed in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 8.0).
[3]Also consistent with other *Mycobacterium* species
[4]The amount of genomic DNA in the vial falls below the current specifications, but does not negatively impact the final product.
[5]Although the OD_{260}/OD_{280} ratio falls below the current specification, the material was still functional in PCR applications.
[6]37 days at 37°C in an aerobic atmosphere with 5% CO_2 on Middlebrook 7H10 agar with OADC enrichment.
[7]An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-positive and Gram-negative bacteria.

Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ TrackIt™ 100 bp DNA Ladder
Lane 2: 120 ng of NR-49655

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/Heather Couch/
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